

**Notice of Allowability**

Application No.

09/517,813

Examiner

Edan Orgad

Applicant(s)

RAUST ET AL.

Art Unit

2684

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to election made 7/18/05.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>10/11/05</u> |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                       |
|   | 9. <input type="checkbox"/> Other _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election in the reply filed on 7/18/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

This application is in condition for allowance except for the presence of claims 27-36 to an invention non-elected without traverse. Accordingly, claims 27-36 been cancelled.

### **Examiner's Amendment**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claims 27-36 are cancelled.

### ***Allowable Subject Matter***

Claims 1-26 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art of record fails to specifically disclose a method for communication between earth terminals and satellites comprising a plurality of satellites, each having a receiver tunable to a selected frequency and providing a plurality of earth terminals

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adapted to send messages to, and receive messages from, the plurality of satellites and defining at least one sub-band of a frequency spectrum as a sub-band not being non-mutually exclusive of other sub-bands. Further, assigning at least one sub-band to each satellite receiver to accommodate a plurality of regulatory constraints and requirements for one or more countries and assigning each earth terminal to one of the satellite receivers and dynamically selecting a center frequency for the communication channel for each receiver within the sub-band assigned to that receiver. Further, tuning each satellite receiver to the communication channel selected for that receiver and informing at the listening earth terminals of the communication channel selected for the receiver to which each earth terminal is assigned and compensating for differential frequency and time of arrival arising from low Earth Orbit spacecraft dynamics and transmitting messages from the earth terminals to the respective assigned satellite receivers at the selected communication channel for each receiver.

The closest prior art cited by examiner (specifically, Wolcott et al- US # 6,317,583) disclose a method for mapping feeder link to a mobile link beams on a transponding satellite where the mapping is done based on predetermined frequency plan and thereby avoiding interference between adjacent beams, beam handovers without changing assignments or channelizer switch settings and thereby eliminating the need for onboard state coordination. Furthermore, Wolcott is discloses a CDMA satellite system, where the system forms sub-bands centered around a center frequency for transmission and reception to earth terminals and where that the sub-bands are formed according to a predefined frequency plan, and that each earth terminal is assigned a sub-band, centered on a frequency, and a CDMA code channel within that frequency. However, a clear distinction between the present application and Wolcott as well as

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other cited art, either alone or in combination, is that the prior art defines the term sub-band as predetermined mutually exclusive, contiguous pieces of frequency spectrum within a larger allocation as oppose to the present application which clearly defines the sub-band as not being non-mutually exclusive of other sub-bands. In other words, as a random access frequency channels grouped and assigned in such a way as to satisfy regulatory requirements of different regions and regulatory jurisdictions. Further, the cited prior art all use prior knowledge of the mobile earth station location in order to compensate for differential frequency and time of arrival. Clearly, the distinction of defining the sub-bands not as mutually exclusive areas of spectrum, but rather as non-exclusive and possibly overlapping portions of the frequency spectrum defined to accommodate particular rules of different regions and the means to identify and compensate for differential frequency and time of arrival arising from low earth orbit space craft dynamics without prior knowledge of the mobile earth station location provide for contrast between the present invention and the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 571-272-7884. The examiner can normally be reached on 8:00AM to 5:30PM with every other Friday off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**EDAN ORGAD**  
**PATENT EXAMINER/TELECOMM.**

*E.O.*     *10/10/05*